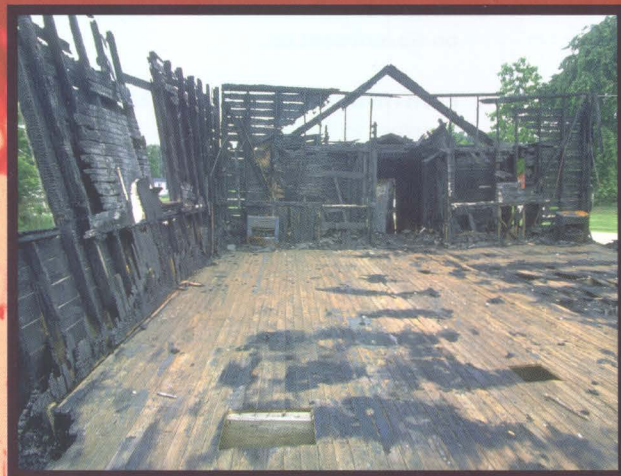


Government Issue

AT&T'S PUBLICATION FOR ITS GOVERNMENT CUSTOMERS V.5 Nº.4 FALL 96



The recent rash of suspicious church fires has been causing great concern for federal, state and local law enforcement agencies. Now, the Bureau of Alcohol, Tobacco and Firearms and AT&T are fighting back by providing a vital communications link between the public and law enforcement.

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PHOTO BY LYNN REESE/ SABA

INSET: AFTERMATH OF THE FIRE,
WHICH DESTROYED THE MOUNT
PLEASANT BAPTIST CHURCH.
PHOTO BY NAILAH FEANNY/SABA

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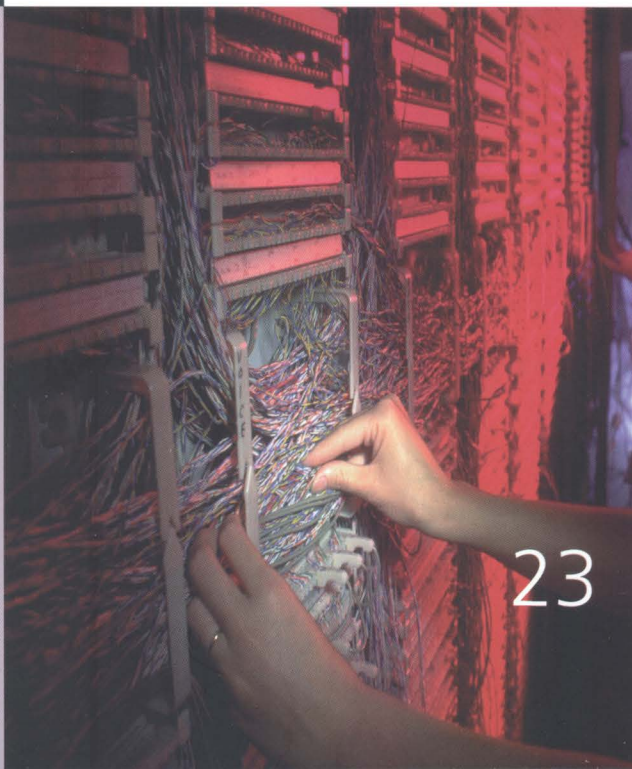
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So how do we measure up? The survey says...

A COUPLE OF ISSUES AGO, WE INCLUDED A SURVEY ASKING YOUR OPINIONS on this publication. We wondered how well *Government Issue* is meeting its goal of providing you with interesting, informative articles about AT&T technology and services for government customers. Many of you took the time to reply and share your ideas about how we can make *GI* even more valuable.

Here's a brief look at the survey's findings:

Most of you are regular readers.

Almost nine out of 10 respondents always (54 percent) or usually (33 percent) read *Government Issue*.

Almost two-thirds of those of you who read *Government Issue* read all or most of the articles in the publication. Of those who don't read *GI*, 57 percent said it's because the articles are not interesting to you. Another question asked what kinds of stories you'd like to see more of (see below), and we will act on your suggestions.

Six out of ten (60 percent) of you rated *GI* as very informative regarding AT&T's involvement with the government, and over half (54 percent) believe *GI* is very informative concerning AT&T's services.

About half of you (51 percent) said you'd like to see more stories emphasizing technology. You also said you'd prefer more stories emphasizing applications



(44 percent) and more news briefs (43 percent). We hear you, and we'll be adjusting our story selection to give you more of what's helpful to you.

About two-thirds of you (65 percent) said you'd miss *Government Issue* somewhat if you no longer received it, and one in four (25 percent) said you'd miss it a lot.

We're glad to hear that, and we hope to make *Government Issue* even more indispensable to you.

We plan to follow up on your suggestions as we continue striving to make *Government Issue* a valuable telecommunications partner for you. Thanks for taking time to share your opinions with us. And keep in touch. You can reach *Government Issue* any time by fax at 202 776-6095 or by e-mail at resposito@attmail.com

—Joyce Deaton



Fighting Back with Nationwide Hot Line

ATF and AT&T extend a much-needed helping hand

IN JUNE, THE BUREAU OF ALCOHOL, TOBACCO AND Firearms (ATF) unveiled one of its newest weapons in its ongoing war against crime, 1 888 ATF FIRE, a toll-free, nationwide hot line for gathering information on violent criminal activity relating to arson and other acts of violence against places of religious worship.

On June 8, in his regular Saturday radio address, President Clinton announced "...new federal action is being taken to solve the mystery of the church burnings in the South." The installation and implementation of 1 888 ATF FIRE is one part of the administration's plan to bring an end to these senseless crimes.

1 888 ATF FIRE used to gather investigative leads

There have been numerous church fires of 'suspicious origin,' mostly in Southern states, since January, 1995. ATF agents, FBI agents and local authorities find investigations especially difficult because evidence literally goes up in smoke and because the churches are often located in isolated, rural areas, and witnesses are scarce. That's where 1 888 ATF FIRE comes in.

"This hot line can be a valuable law enforcement tool, especially when we get a quick response from callers at the time of a fire," said Jiles Trice, ATF special agent in charge, ATF National Communications Center. The hot line is monitored 24 hours a day by ATF special agents, who evaluate the information they receive, then pass it along to field investigators.

"When a call is received, we tell the callers they can remain anonymous if they choose," said agent Trice. "We emphasize how important the information is in prosecuting those responsible for the burnings. We thank callers for their help and encourage them to tell others to use the number as well."

Trice said 1 888 ATF FIRE is a critical link in helping the ATF and the National Task Force gather leads.

AT&T responds overnight

"Normally, it takes three weeks to schedule and complete this type of installation," said David Lake, AT&T account executive for the Department of the Treasury. "However, AT&T's Customer Care Organization understood the mission-critical nature of the service and acted with a tremendous sense of urgency."

At the time the president announced the new service, 1 888 ATF FIRE had already been in service for nearly 24 hours.

ATF and its customers use AT&T's FTS2000 800/888 service. The 888 numbers are toll-free to the users and operate the same way as the original 800 toll-free numbers.

Providing vital ongoing support

"We know this hot line is a valuable resource because ATF has been receiving hundreds of calls every week since the number was activated," said AT&T's Lake. "AT&T played a key role early on in getting the service installed quickly. However, we have a more important continuing role in seeing 1 888 ATF FIRE is working to its fullest capacity. We've developed a close working partnership with the ATF and we stay in constant touch with them to determine what type of service is required on an ongoing basis."

"Just like the people at ATF, all of us at AT&T feel a deep sense of loss when these fires occur, and we want to do our part in assisting law enforcement, especially when they are criminal acts," Lake said.

If you'd like information on how AT&T's FTS2000 800 and 888 toll-free service can help your agency, contact your account representative. —Richard Meier

The torching of churches in the South has become a nationwide crisis. Most citizens are outraged by these cowardly crimes because the churches are usually located in isolated rural areas, and the worshipers are typically poor. To these individuals, the church is often the center of their lives, and their loss takes on a much deeper meaning than it might for those who live in more populated areas.

When the Mount Zion Missionary Baptist Church outside Ladonia, Texas was reduced to rubble in January of this year, 71-year-old Inez Edwards said, "I felt like I had lost someone from my family. The church is the heartbeat of any black community."



A "Mountain Climber" Joins an "American Institution"

THE MAN LEADING AT&T'S SUPPORT FOR THE DEPARTMENT OF Defense (DoD) has walked considerably more than a mile in the shoes of the customer he now serves. To be more precise, retired Air Force Lt. Gen. Harry Goodall has flown those miles during a 41-year military career as a fighter pilot and air commander.

Goodall began his military service as a 17-year old enlistee. He flew missions during the Cuban Missile Crisis, logged more than 200 combat flights in Southeast Asia, and was the Air Force Special Operations commander during the evacuation of Cambodia and Saigon. He also served in a variety of international assignments, including the Strategic Arms Limitation Talks (SALT) as well as anti-satellite, European force reduction and chemical warfare negotiations. Subsequently, he assumed high-level commands for DoD and NATO.

By the time he retired from the Air Force in 1991, Goodall had two master's degrees, more than 100 military awards, and considerable first-hand experience with the

challenges of battlefield communications.

"I've directed many military operations, war games and practice exercises; and communications was the principal difficulty we always

experienced," he said. "Boxes couldn't plug into each other, systems couldn't communicate and people were frustrated. So I understand that perspective—the need to be able to promptly and accurately communicate during the conduct of military operations."

For five years following retirement, Goodall headed his own consulting firm specializing in energy conservation, communications and government relations. During one project for an AT&T contractor, involving cellular communications in Bosnia, he facilitated discussions between senior military leaders and industry. In June, he joined AT&T as vice president of Defense Markets.

"Harry brings to our leadership team a great combina-

tion of career experience, commitment to DoD priorities and a deep understanding of our customers' needs," said Dick Lombardi, president, AT&T Government Markets.

Goodall is based in Washington. "This may sound corny, but AT&T to me is an American institution, and to be able to spend some part of my life with a company like this has tremendous appeal," he said.

Goodall's first priority has been basic: recommit AT&T to do the best job possible as a provider following DoD's communications agenda. He refuses to measure success by internal standards. "The customer's perception is the true measure of a relationship," he said. "I've already begun the process of emphasizing the importance of working on that perception—and I don't want it to be smoke and mirrors. I want it to be real."

Preparation of AT&T's DISN contract proposals has also occupied much of his time. "There are several large and very important DoD proposals we're responding to. We've

LEFT: Harry Goodall, vice president, AT&T Defense Markets

spent a lot of time working on them, and we think we will be very competitive," he said. "DoD is looking for the best value for its money, and AT&T comes to the table as a worldwide communications company, not just a long-distance telephone company. I believe we have the best people, technology, and global infrastructure to well serve DoD."

Internally, Goodall is committed to initiating change based on customer need "rather than change that just stirs the pot and makes bubbles so people know I'm around."

What will it take to declare his mission accomplished? "Win a major piece of the DISN contract and then execute it smartly with great respect for the Department of Defense," he said. "When DoD has a communications problem, I want AT&T to come to mind as the preferred provider of a fairly priced, equitable, technically proper solution." —**Jackie Wides**

DoD Takes Giant Step

Upgrades to high-performance computing

THE DEPARTMENT OF DEFENSE (DOD) took another step toward its goal of placing cutting-edge high-performance computing resources into the hands of its researchers in July. AT&T Government Markets won a major award—the Defense Research and Engineering Network (DREN) Inter-site Services Contract (DISC). The contract will provide a high-speed wide area network among major DoD research and engineering laboratories and test centers throughout the United States.

Under the contract, AT&T will connect 5,500 civilian and military DoD researchers, as well as universities conducting government-funded research, to four large, full-service high-performance computing centers, called major shared resource centers, and 10 to 15 smaller, specialized distributed centers. Equally importantly, the network will connect those scientists and engineers to each other. Scientists and engineers in smaller locations will access research facilities using Internet protocols, ATM, circuit emulation or gateway connections.

"Each of these computing centers is a hub for scientists, engineers and modeling and simulation experts at DoD laboratories and test centers throughout the country," said Eduardo Schonborn Jr., DISC project manager for the Defense Information Systems Agency. "They're doing highly specialized research that requires very sophisticated computing."

A sample of 1996 projects includes a study of stresses in ship hulls to ensure the safe acoustic testing of U.S. submarines for quiet operation; likely responses if a plane were to crash into a chemical agent storage yard, intended to aid public safety planning; and three-dimensional simulation of round parachutes, aimed at replacing time-consuming and costly full-scale testing.

DISC is the connectivity component of DoD's High Performance Computing Modernization Program that is creating and maintaining leading-edge, high-performance computing capability for its scien-



STEVE BARRETT

tists and engineers. The contract will support two primary research "communities" within DoD: High-Performance Computing and Modeling and Simulation.

Looking over a copy of the newly awarded DREN contract are, from left, Pamela Locke, contracting officer; Kay Howell, program manager; and AT&T's Harry Goodall.

The two communities have different areas of interest, different sources of funding, different internal programming procedures and independently derived mission objectives. But they share a common need for high-performance computing and for wide-area data transport services for the transfer of large data files, remote interactive visualization of the results of their calculations, and advanced applications such as virtual reality.

AT&T will use Asynchronous Transfer Mode (ATM) and Synchronous Optical Network (SONET) technology to provide wide area network connectivity among major research and engineering locations. The contract makes the defense community one of the largest users of AT&T's ATM services.

"AT&T was chosen because of its past performance, its technology capabilities and its cost in a competitive bidding process," said Schonborn.

Awarded by the Army's Information Systems Selection and Acquisition Agency, the contract carries a three-year term with an option for two additional years.

—**Joyce Deaton**



Eco-Challenge 1996

AT&T Enables Navy Athletes To Compete in Wilderness Survival Race

BY ALICIA NORDQUIST ★ PHOTOS BY GREG MATHEISON



AT&T'S DEFENSE MARKETS VICE President Harry Goodall, also a retired Air Force lieutenant general, was perusing a mid-July issue of *Navy Times*, an independent weekly publication, when a headline buried on page 20 caught his eye. "Ready, but not set to go," it blared, and the saga of an underfunded team of Navy athletes struggling to enter what some refer to as "the hardest race in the world" unfolded. In its second year, this race, Eco-Challenge, was special, and Goodall knew AT&T would soon become a part of it.

"Eco-Challenge represents a personal pursuit for each of these fine athletes in conquering his or her limitations," explained Goodall, "as well as an opportunity to represent their country. In light of AT&T's continuing commitment to the Department of Defense, we feel honored to have supported it in this inspiring endeavor."

It sounded like a good idea to Chief Boatswain's Mate Joe Burns: 320 miles over British Columbia's

The Red Team: From left, Engineman 2nd Class **Jody McIntyre**; Chief Boatswain's Mate and team leader **Joe Burns**; Public Affairs Officer **Lt. Pamela Kunze**, Bureau of Naval Personnel; Boatswain's Mate 1st Class **Johnny Hoffman**; Senior Chief Boatswain's Mate **Arthur Toehlike**.

extreme Canadian terrain, non-stop, on foot, horseback, mountain bike, raft or canoe, down whitewater, up steep mountains, over miles of icy glaciers. Oh, sure, there'd be some fog and snow, unpredictable temperatures, icy waters and forests thick with grizzlies, but,

hey, that's the fun of it, right?

For Burns, a 13-year Navy Sea-Air-Land (SEAL) veteran, the prospect of traveling by night, rarely sleeping and putting his life on the line was exciting. "We do this every day," he said. "It's a natural for us." So when he heard about Eco-Challenge, Burns put his organizational skills to work and got down to business. "All I had to do was put together a team and find some time and money."

Easy enough? Organizing the team, maybe, but finding the money? For things like stiff entry fees, special equipment, clothing and food, civilian sponsorship

CONTINUED ON NEXT PAGE

would be critical, since the Navy doesn't provide funds for athletes competing in non-Olympic events. Time? They'd be on their own, training together nights and weekends and using vacation leaves to participate in the eight-day wilderness survival expedition.

Back at the Norfolk, Va., base, Burns, 34, approached his SEAL buddies with the concept. "At first, they all thought I was nuts, but the more they thought about it, the more they liked it," he said. Soon, Senior Chief Boatswain's Mate Arthur Toehle, 35, Boatswain's Mate 1st Class Johnny Hoffman, 31, and Engineman 2nd Class Jody McIntyre, 26, made the commitment. Four of the five "Red Team" members were in place. Then, Engineman 2nd Class Boyd Renner, 26, and Gunners Mate

1st Class Aaron Dye, 26, signed on as the required assistance crew. But Eco-Challenge teams must consist of at least one member of the opposite sex, so "now the challenge was finding a female," Burns said.

Burns heard about Lt. Pamela Kunze, a Public Affairs officer stationed at the Bureau of Naval Personnel in Washington, whom he'd never met. An All-American track athlete, Kunze had earned a reputation as a long-distance runner and also for her expertise in horsemanship, an area of competency the team felt they lacked. What's more, she was savvy about fundraising. It was a perfect match and she jumped at the chance to compete.

"This was an amazing opportunity to prove to myself I could do something like this," Kunze said, "It was a huge responsibility, coordinating with the team, training and getting sponsors. It's not about being the only woman on the team; it's all about performance."

But in July, six weeks before the Aug. 24 event was set to begin, the team found themselves in the throes of a serious financial crisis. They had run out of money and had no prospects in sight. Noting how close the team came to seeing their dream fade, Burns said, "AT&T's contribution allowed us to pay for our hotel rooms on the way, our rental vehicles, equipment and cold-weather gear. Without that, we never would have made it to Canada."

Eco-Challenge athletes, who hail from all walks of life and from countries around the world, did not know the course or destination of the race until

hours before the 70 teams took off in a mass start. All they knew was they'd be using every survival skill they ever learned, and ultimately strategy, stamina and teamwork would be the key to winning.

Although it was unusually hot in British Columbia for that time of year, temperatures dipped to the low 40s at night, when the Red Team did most of its traveling, and the sounds of uninhibited wildlife were

never far away. "Conditions became so severe when we got to the mountains," Hoffman explained, "the snow, ice, fog, rain and high winds prevented us from continuing. We all just hunkered down until officials allowed the teams to go on." Hoffman said many of the teams just "underestimated the difficulty of the course." Extremes in the weather and terrain put many teams out of the race.

Last year in Utah, Team Hewlett Packard (France) won the race, with 29 teams out of 50 arriving at the finish line with all five members. By the fourth day of this year's event, 24 teams had been disqualified, and the Red Team was in 19th place.

But eight days, nine hours and 32 minutes after the race began,

TEAM RANKINGS

Team

Country, Time: Days, Hours, Minutes

1. **Team Eco-Internet/Reebok,**
NZ/USA, 6 d, 17 h, 44 m
2. **Team Hi-Tec Adventure,**
NZ/USA 7 d, 10 h, 48 m
Team Hewlett-Packard,
France, 7 d, 10 h, 48 m
(tied intentionally, walked across the
finish line holding hands)
4. **Team Southern Traverse,**
NZ/USA, 7 d, 20 h, 14 m
5. **Team Foxtel,**
Australia, 7 d, 20 h, 32 m
6. **Team Gregory Mirage,**
NZ/USA/France, 7 d, 20 h, 35 m
7. **Team Self Magazine,**
NZ/USA, 7 d, 22 h, 32 m
8. **Team Benincasa-Mountain Dew,**
USA, 7 d, 22 h, 32 m
9. **Team S.C.A.R.,**
U.S.A., 8 d, 7 h, 53 m
10. **Team Solomon-Blackcomb,**
Canada, 8 d, 8 h, 7 m
11. **Team U.S. Cavalry,**
U.S.A., 8 d, 8 h, 11 m
12. **Team Forest Alliance,**
Canada, 8 d, 8 h, 50 m
13. **Red Team,**
USA, 8 d, 9 h, 32 m
14. **Team New Mexico,**
U.S.A., 8 d, 10 h, 19 m

Five nonranked teams (teams with fewer than five members still competing) also finished the race:

Team Red Wolf, Team Endeavor,
Team Big Sky, Team Subaru,
Team Life Extension International.



Red Team crossed the finish line in a very respectable 13th place. Hoffman sustained a kick in the hip from his horse on the first day, Kunze spent a couple of minutes knocked out at the bottom of a mountain and they all suffered from "Fred Flintstone" sore and swollen feet, but those were the extent of their injuries.

"We were tired!" Kunze reflected just three days back from Whistler, B.C., the base of operations. "At first, we thought it would be great just to finish, but once we got into it, we really wanted to win. Considering only 14 teams actually finished, we're more than happy with our results."

What's the key to winning this brutal test of mental and physical endurance? "Everything about this race is experience," Hoffman stressed. "This year's top winners have been competing in these kinds of races for years in places like France and South America."

Will the Red Team do it again? The consensus is "absolutely," although the team agreed "this definitely was the hardest thing we've ever done." Kunze noted, "When we started the whitewater rafting phase, we were in 8th place and we were paddling as hard as anyone, but because we didn't know how to read the river, we couldn't get into the right water. We definitely know what we're going to work on for next year."

"Eco-Challenge 1997 will be held in Australia," said Diane Korman, Eco-Challenge director of Media Relations, "and the rules will be different for this race. We're trying to bring the sport to a new level, to make it a unique type of challenge."

For more information about Eco-Challenge, call Korman at 310 553-8855. ■

Training together for the Red Team wasn't easy; the SEALs are stationed in Norfolk, Va., while Kunze is based in Washington.

5 RINGS

and AT&T is there

THAT WAS THEN. THIS IS DEFINITELY NOW.

In 1964, AT&T transmitted the opening ceremonies live from the Olympic Winter Games in Innsbruck, Austria, marking the first live transoceanic transmission of an Olympic event.

In 1996, after prime-time television coverage had ended, Web surfers around the globe logged onto the AT&T Olympic Games Web Site not just to check the day's scores, but also to check out live action in Centennial Olympic Park, try their skill at computer-game basketball, or visit the Olympic Museum in Switzerland.

As a partner-level sponsor of both the Centennial Olympic Games and the U.S. Olympic Team, AT&T supported the games with advanced technology, special hospitality and the human resources needed to help Olympians and those watching them around the globe do what the company's Olympic commercials suggested: "Imagine a world without limits."



Communicating the Games

The AT&T **Global Olympic Network** tied together competition venues, training centers and administrative offices in the United States and other International Olympic Committee locations. And AT&T supplied thousands of wired and wireless telephone sets, desktop video systems for the security network, thousands of miles of fiber-optic and copper cable, and other technology and services to eliminate differences among communications protocols.

The AT&T **Worldwide Intelligent Network** handled almost 2.86 billion calls during 16 days of Olympic competition. Of these, 99.9935 percent were completed on the first attempt. The network carried approximately 525,000 minutes of use per day during the games.

To support worldwide broadcasting needs, AT&T deployed 640 video loops from more than 60 locations. That's the broadcast equivalent of six and one-half national political conventions or 21 Super Bowls. AT&T was the carrier of choice for virtually every television and radio broadcasting company covering the games.

For NBC, the official U.S. broadcaster, and Atlanta Olympic Broadcasting, the supplier of video images to the rest of the world, AT&T built its single largest broadband video network, including 116 digital video services.

AT&T teamed with Xerox and the Atlanta Committee for the Olympic Games to provide **OTTO (Olympic Technology Trailer Operations)**, a 48-foot traveling techno-trailer to provide results reports and communications at preliminary events and temporary venues

BY JOYCE DEATON

PHOTOGRAPHS BY
FRED SMITH ASSOCIATES

CONTINUED ON NEXT PAGE

during the games. Olympic officials who needed mobility in sports such as road cycling and race walking used OTTO for all their telecommunications needs.

AT&T also partnered with IMED-Link, Kodak, Panasonic and others to help provide **telemedicine systems** at the Olympic Village Polyclinic for athletes, the veterinary clinic at the equestrian venue, and military housing for 12,000 U.S. troops helping to provide security at the games. (See related stories.)

Making Visitors Welcome
AT&T Global Olympic Village, a 60,000-square-foot pavilion in the 21-acre **Centennial Olympic Park**, hosted about 17,000 Olympic athletes and family members, housed television and radio broadcast studios and entertained park visitors virtually around the clock. Inside the Global Olympic Village, athletes and guests placed long-distance calls, received translation assistance, played video games, and enjoyed refreshments and the company of their families and fellow athletes.

About 336,000 people visited the **AT&T Global Olympic Village Communications Center** to experience state-of-the-art technology, surf the Internet using AT&T WorldNetSM Service and experience digital satellite television. The seven-foot working Big Phone allowed entire families to participate in a group call. Visitors picnicked on large adjoining patios and took in nightly multimedia shows featuring the day's Olympic highlights. More than 1.4 million people attended free concerts at the Village's outdoor sound stage.

At 15 **AT&T Centennial Olympic Games Calling Centers** throughout Atlanta and one mobile unit in Birmingham, Ala., Olympic visitors placed calls, purchased official Olympic Games-themed AT&T PrePaid Calling Cards, and picked up the *AT&T Traveler's Companion*, a free guidebook in nine languages. Open for 18 hours daily, the wheelchair-accessible centers accommodated 20 to 50 people.

AT&T Language Line[®] Services broke communications barriers by offering Olympic visitors over-the-phone interpretation in 140 languages 24 hours every day. Used most often for banking transactions, translations for the Atlanta Committee for the Olympic Games and assis-

tance to foreign visitors shopping for souvenirs, Language Line's greatest demands were for translations to Russian, Korean and Spanish, followed by Italian, Japanese and

Portuguese. The services were available at information booths at major Olympic venues, at the AT&T Global Olympic Village in Centennial Olympic Park and at AT&T Calling Centers. Language Line already was in use at Atlanta area hospitals, the Atlanta Police Department and MARTA, the city's public transportation system.

To ensure all Olympic spectators could communicate with ease, AT&T provided 50 telecommunication devices for the deaf (TDDs) deployed at competition venues. TDDs also were available in all AT&T Centennial Olympic Games Calling Centers. At the AT&T Global Olympic Village Communications Center within Centennial Olympic Park, the company installed 26 of its state-of-the-art PP2000 telephones equipped

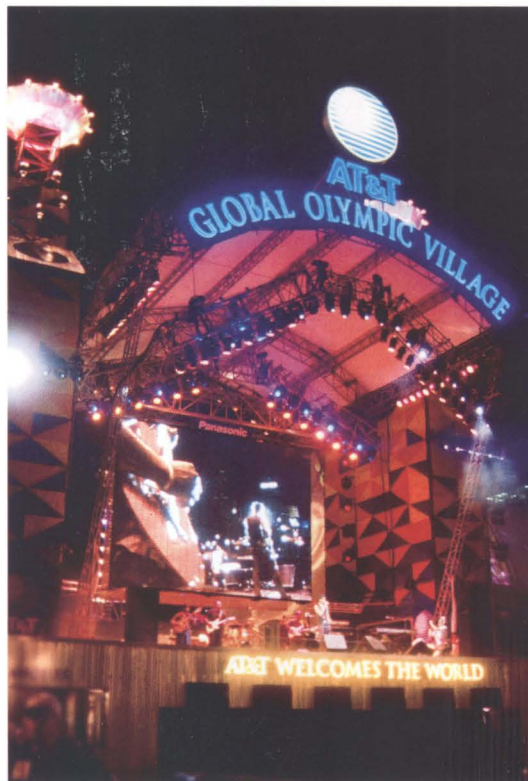
with dual-purpose keyboards, used as computer keyboards or TDDs.

<http://www.Olympic.ATT.com>

The **AT&T Olympic Games web site** averaged 2 million hits a day during the height of the games. More than 36,000 people in at least 180 countries registered to use the site's switchboard feature providing information customized to their interests.

The AT&T On-Line Olympic Games allowed web visitors to compete in events such as basketball, pole vaulting and diving, then share their scores with others through a scoreboard seen around the world. The AT&T Centennial Olympic Games Send-Off interactive contest linked the web community to on-site action as visitors in AT&T's Global Olympic Village in Atlanta became contestants by answering the question of the day. Web site visitors voted to select a daily winner, who entered a sweepstakes to win a free trip to a former Olympic host city.

Through its 'Eye on Centennial Olympic Park' and 'Eye on the AT&T Global Village,' the web site kept browsers in touch with live action in Atlanta. Home pages on 26 AT&T-sponsored Olympic athletes included profiles, career highlights, photos and personal information for fans. And web visitors could enjoy a virtual tour of the International Olympic Committee's Olympic Museum in Lausanne, Switzerland, even "picking up" objects and viewing them



AT&T's Global Olympic Village lights the night sky at Centennial Olympic Park.

in 360-degree realism with the click of a mouse.

Keepers of the Flame

About 2,700 AT&T employees worked for the Atlanta Committee for the Olympic Games as unpaid **volunteers**, serving as envoys to international teams, drivers for athletes and Olympic officials, escorts for teams at competition venues, and in hundreds of other assignments.

The **AT&T Atlanta Family to Family '96** program matched 2,200 foreign visitors from 62 countries with families, many of them AT&T employees, who opened their homes to travelers during the Olympic games.

And when a pipe bomb shattered the festive mood of Centennial Olympic Park near the AT&T sound stage on the eighth day of the games, AT&T people responded instantly. Employees attending the free concert quickly came to the aid of victims. AT&T's operations team in Atlanta established an employee hot line and organized a phone bank to locate all AT&T volunteers and staff, as well as 750 customers in Atlanta as AT&T's guests.

After the American Red Cross hot line generated calling volume that hampered calling from the athletes' Olympic Village, Lucent Technologies and AT&T network service managers worked with the Network Control Center in nearby Conyers to regulate volume and return normal calling capability.

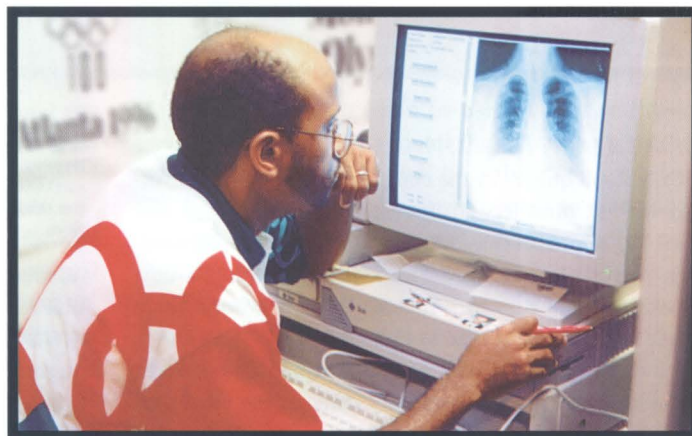
As AT&T's Global Olympic Village re-opened with Centennial Olympic Park on July 30, the first event on its stage was a memorial service for victims of the bombing. Then AT&T people joined the entire Olympic community in redeeming the park from its dark night of terror to its rightful place as a festive crossroads for the world's people to celebrate in freedom and unity the unique spirit of the Olympic games. ■

OLYMPICS: TELEMEDICINE

The 1996 Centennial Olympic Games July 19-Aug. 4 were a once-in-a-lifetime experience—for the more than 10,000 athletes from 197 countries who competed, for the thousands of spectators who watched in the stands, for the people of Atlanta, who opened their hearts, their city, and in many cases their homes to visitors from all over the world, and for AT&T.

One of the most intriguing of AT&T's Olympic contributions was its partnership with the Atlanta Committee for the Olympic Games (ACOG), the metropolitan Atlanta and Georgia medical communities, universities including the Medical College of Georgia and the University of Georgia Veterinary College, and industry partners such as IMED-Link, Kodak and Panasonic to provide state-of-the-art telemedicine services. These services made the games safer and more comfortable for Olympic athletes, both humans and horses, and for U.S. military personnel helping to provide security for the games. Here's a look at AT&T's telemedicine services at the Olympics.

Dr. Adrian Douglas uses the videoconferencing link at the athletes' Polyclinic to discuss a chest X-ray with a specialist at an Atlanta-area hospital.



OLYMPICS: VETERINARY TELEMEDICINE

Thanks to a unique collaboration among AT&T and others, an innovative telemedicine system installed at the equine veterinary clinic allowed injured horses to quickly be helped by specialists 40 miles away.



BRAVEHEART, A BEAUTIFULLY MUSCLED BROWN horse, stood quietly in the clinic examination area, favoring his left hind leg. His owner patted his muzzle and spoke soft words of comfort. Slated to compete in the modern pentathlon at the Centennial Olympic Games, Braveheart had run into trouble. A badly swollen ankle made it hard for him even to walk.

But thanks to an innovative telemedicine system installed at the equine veterinary clinic at the Olympics' Georgia International Horse Park just outside Atlanta,

Braveheart would quickly be helped. Dr. Jack Snyder, head of the clinic, extracted a vial of fluid from the swollen joint and sent it to the clinic's on-site lab. In less than a half hour, Dr. Sharon Spier, veterinarian and imagery specialist, retrieved a slide from the lab and placed it under a microscope linked to a video camera.

At the University of Georgia Veterinary Medical College 40 miles away in Athens, a pathologist examined a video image of the slide with Spier and shared his findings: cells that indicated inflammation of the joint from a puncture wound that had progressed to septic arthritis. Such a wound could easily have happened in transit from Braveheart's home in San Antonio, Texas, to the Olympics. It was an emergency situation requiring lavage—a thorough cleansing of the joint under anesthesia. For this involved procedure, Braveheart would have to be transported to Athens. He would miss the pentathlon, but he would recover.

Braveheart and approximately 250 other horses gathered in

Bruce Davidson and Heyday of the American team, perform in the dressage competition.

Atlanta for the Olympic games were ensured the finest possible medical care, thanks to a unique collaboration among AT&T, Andries Tek, the Southeastern Technology Center in Augusta, Ga., the Atlanta Committee for the Olympic Games (ACOG), and Panasonic.

The idea originated with Dr. John Church, senior

research scientist/program manager for telecommunications with the Southeastern Technology Center, a nonprofit corporation seeking to encourage technology development in the private sector and grow jobs in the Southeast. When the University of Georgia Veterinary Medicine College was designated as the facility for veterinary hospital referrals during the Olympic Games, Church recognized an opportunity. A consortium of companies could demonstrate a prototype telemedicine system and illustrate the technology's potential while making a valuable contribution to the health of equine athletes at the games.

"As we developed the idea of the project, we realized we needed a robust communications infrastructure, and we thought of AT&T," said Church. "Through AT&T we were introduced to Panasonic."

Working through the local telephone company, AT&T provided T1 lines with both PRI* and BRI* service—furnishing two ISDN* channels for radiography and 18 for teleconferencing—and major financial support for the project. Panasonic supplied videoconferencing systems at the equestrian venue clinic and the University of Georgia.

Andries Tek, an Austin, Texas, firm specializing in telemedical equipment, furnished a wide range of equipment including radiological scanners, an electronic stethoscope, electrocardiogram and telepathology units, an endoscope, ultrasound equipment and a thermographic camera that could reveal "hot spots" where inflammation was present.

"What we have here is a veterinary hospital," said Snyder on opening day of the equestrian competition. "We have a million dollars' worth of equipment on loan. You'd find all this equipment at only about 10 veterinary hospitals in the nation."

Combining these tools with the video link, for example, a veterinarian at the Olympic clinic could do an endoscopic exam of stomach ulcers, instantaneously consulting with a distant specialist. Real-time consultation on ultrasound and thermographic exams of a horse's inflamed tendons could yield a quick diagnosis—and save the time and trouble of transport to the University of Georgia animal hospital.

For most data exchanged, a video store-and-forward image with its high resolution proved to be the preferred mode. Real-time video could be helpful as well—for example, to share an observation of how an injured horse walked.

Dr. Kent Allen, veterinary coordinator for the Olympic games, said team veterinarians for the equine athletes espe-

cially appreciated the telemedicine link. "I've worked as a vet for the American team in other years, and I know how important this is," he said.

"The vets stay very close to their horses, sometimes even walking up to the ring with them. If one of their eight horses has to be sent away for treatment, it's a big problem for the vet to go with him and leave the others. It puts the team in a bad position. With our telemedicine setup, the vet can be as involved in the case of a sick horse as he wants to be and still stay here with the others."

Since horses are more vulnerable to the effects of heat and humidity than are humans, a major focus for the 80 veterinarians working at the Olympic games was to measure and control the horses' heat-related stress. On the doc-

tors' advice, any horse could be eliminated from competition.

Veterinarians were stationed at every group of jumps, and regular stopping points on the cross-country course furnished ice water and shade. At the end of the course, "microclimates" with misting machines and fans created a temperature drop of eight to 17 degrees.

Information from the Atlanta experience will be recorded and compiled as a database for the next

Olympic games. "We've learned more about the effects of heat and humidity on horses in the past four years than in the previous 40," said Allen. "There will be spin-offs for the horse-owning public that will be a lasting legacy of these games."

The Southeastern Technology Center's John Church hopes the clinic's telemedicine demonstration will have spin-offs as well. "We think there are all sorts of possibilities for this technology in veterinary medicine."

"Also, vets who work in the field could take X-rays, for example, then use ordinary telephone lines or wireless facilities to run them through their PCs and transmit them to a consultation source for an immediate reading. A telemedicine system could be used in zoos worldwide, where often there is a small budget and no medical expert," he said. "And a link from the zoos to veterinary medical colleges could allow students to learn about unusual animals they might not otherwise see. The possibilities are almost endless."

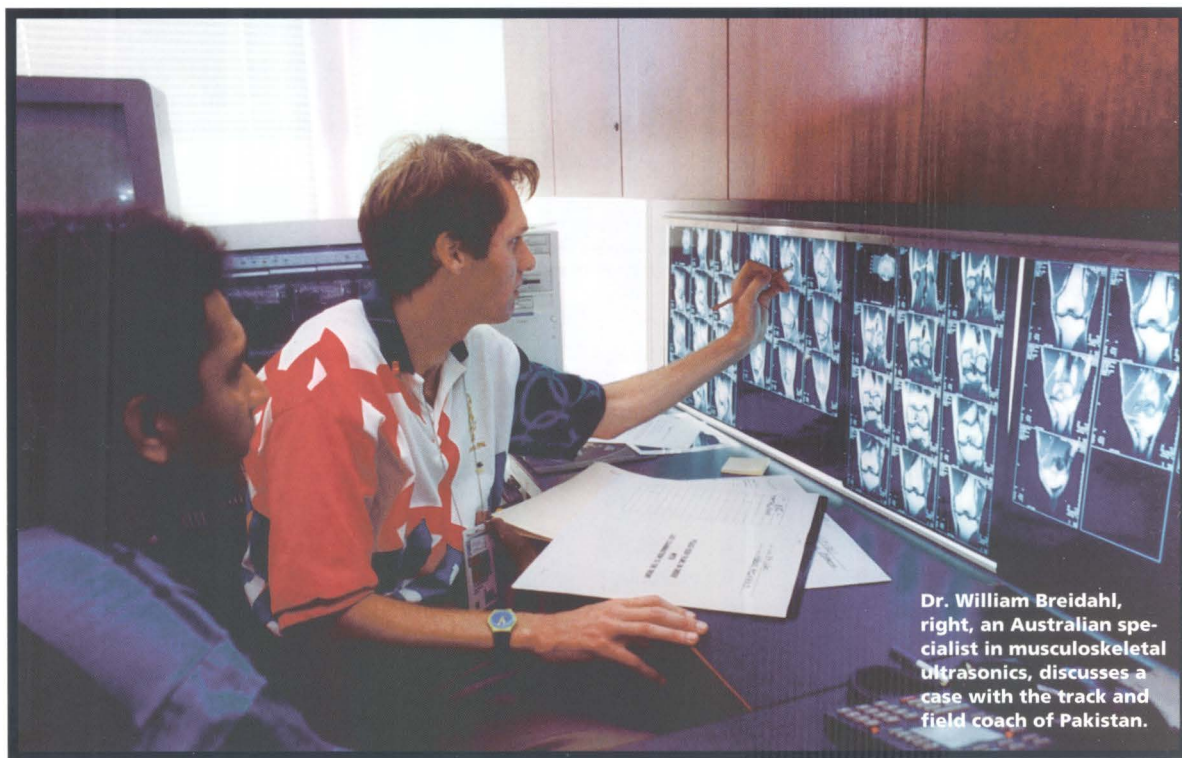
For more information about AT&T's telemedicine network products and services, contact Pat O'Brien at 1 800 897-2501 or by e-mail at attmail!hcare ■



Dr. Jack Snyder uses videoconferencing to discuss a horse's joint problem.

OLYMPICS: POLYCLINIC

Using a telecommunications link supporting full-motion videoconferencing, doctors in Atlanta could discuss cases with specialists at Yale University, the University of Virginia, George Mason University and Baylor College. ★ Physicians simply pushed a button for instant access to the distant hospitals and the physicians' split screen showed all locations at once, allowing them to discuss the case while sharing a view of the patient's EKG.



Dr. William Breidahl, right, an Australian specialist in musculoskeletal ultrasonics, discusses a case with the track and field coach of Pakistan.

THE 23-YEAR-OLD JUDOIST CAME TO DR. MICHAEL Hunt at the Olympic Village Polyclinic complaining of facial pain and fever. After studying his EKG*, Dr. Hunt identified the problem: viral endocarditis, an inflammation of the lining membrane of the heart.

Hunt, an emergency room physician from Swedish

Medical Center in Denver, Colo., volunteering at the polyclinic, decided to take advantage of a unique resource available to physicians caring for Olympic athletes: a telemedicine system linking premier medical centers in the United States for instantaneous expert consultation.

Using a telecommunications link supporting full-

motion videoconferencing provided by AT&T and International Medical and Educational Data Link, Inc. (IMED Link) and videoconferencing equipment provided by Panasonic, Hunt discussed the case with specialists at Yale University School of Medicine, the University of Virginia Health Sciences Center, George Mason University College of Nursing and Health Sciences and Baylor College of Medicine/Texas Children's Hospital.

Polyclinic physicians simply pushed a button on a keypad for instant access to the distant hospitals. IMED Link's headquarters in Bethesda, Md., served as the bridge, and the physicians' split screen showed four locations at once. The doctors talked face to face while sharing a view of the patient's EKG over one section of the monitor. Together,



Alice Lee Wardrep, registered diagnostic medical sonographer with Siemens Medical Systems, conducts an ultrasound examination at the Olympic athletes' Polyclinic.

they discussed the diagnosis and a recovery program for the ailing athlete, who was eager to know how he could regain conditioning and resume training after the convalescence his illness would require.

The Polyclinic (a European term designating a multi-specialty outpatient facility), located in the Olympic Village on the campus of Georgia Institute of Technology, provided 24-hour emergency medical services for athletes, their families and trainers during the Centennial Olympic Games July 19-Aug. 12. It also provided routine health services such as eye exams and dental care, popular among many visitors from countries where these services are difficult to obtain. The 50 physicians saw an average of 300 patients per day.



Dr. Boyd Eaton

"We have lots of specialties represented here, but not every kind of medical expert," said Dr. Boyd Eaton, medical director of the Polyclinic. "We can draw on almost any kind of expertise in the Atlanta area, but getting consulting specialists here through extremely tight security or transporting patients out to the specialists would be very difficult. The telemedicine system has proved very helpful."

In addition to the videoconferencing capability, sepa-

rate T1 links connected the Kodak Digital Science* medical imaging system at the Polyclinic to specialists at West Paces Medical Center and Crawford Long Hospital in Atlanta for electronic transmission of X-ray, ultrasound and magnetic resonance images for expedited interpretation.

"We're very experienced at sports imaging," said Eaton, "but for things like gynecological or neurological exams, we send the images to more experienced experts at one of our consulting hospitals. For example, we can send an MRI** to the other hospital at the same time it's entered into our system here. Typically, within 30 minutes, while the patient is still here, we can report our findings. Without telemedicine, this would take much longer, and it would be hard to get back in touch with our patients."



Dr. Blane Woodfin

"The telemedicine system has been a nice sort of safety net for us," said Dr. Blane Woodfin, medical director of the Olympic Village. "We've been getting a lot of patients with unusual medical problems that are outside the normal range of clinical situations most physicians in this country deal with. It's been nice to consult with a specialist when that happens."

Beyond the Olympic setting, Woodfin said, he sees "tremendous potential for telemedicine in opening up avenues of health care to under-served areas, remote areas—even the Atlanta metro service area.

"Medicine is changing so rapidly," he explained. "In the past nine years, we've gone from being very skeptical about some of these things to doing them on a day-to-day basis. Medicine involves some judgment calls made moment to moment. Having the ability to extend beyond the walls of the room offers tremendous promise. And as we try to take care of patients the best way possible at the least cost possible, I'm sure telemedicine will find a role that will benefit everyone. It increases our efficiency by giving us the ability to be in two places at once, while also saving money."

Blaise Morrissey, administrator of the Polyclinic, added that the Olympic Village telemedicine system also could spread the concept to other parts of the world as well. "The Irish delegation went through the other day, and they really liked what we have set up here," he said. "They felt something like this would be wonderful for a small country like Ireland."

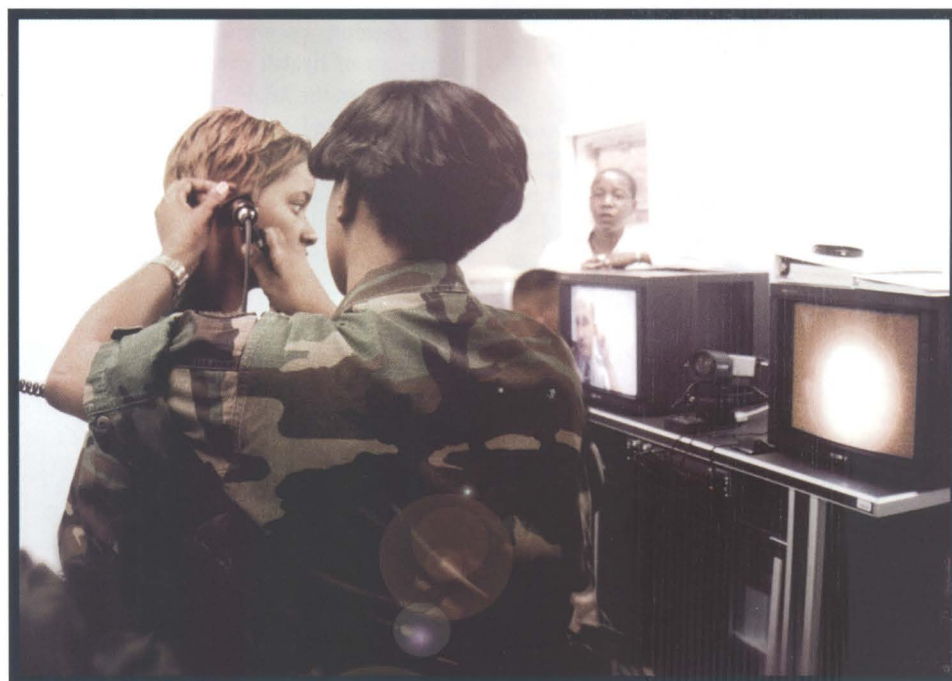
AT&T Government Communications International and IMED Link are working on several projects to provide telemedicine and telehealth services, distance learning programs for health professionals and other services provided over telecommunications facilities to medical professionals and institutions. For more information, call Glenn Lund, AT&T Healthcare Solutions project manager, at 910 279-2354. ■

*Kodak Digital Science is a registered trademark of Eastman Kodak Company.

**MRI magnetic resonance imaging

OLYMPICS: MILITARY TELEMEDICINE

With thousands of troops on duty in Atlanta, the Army needed a more efficient way to deal with Olympics health care. ★ Meanwhile, the Georgia Department of Corrections needed a way to test its new mobile telemedicine van. ★ Together with AT&T, they brought mobile telemedicine to the Olympics.



SGT. SHERI ENGLISH REPORTED FOR EARLY MORNING SICK call at her temporary base at suburban Atlanta's Sequoia High School on July 24. Stationed there as part of the Army's support for the Centennial Olympic Games, English had developed a sore throat and swelling under her ears.

But this was no ordinary trip to the dispensary. Instead, Sgt. English entered a van equipped with a telemedicine system that linked her examining nurse, Maj. Andrena

Martin, to Maj. James Alexander, a family physician at the Department of Defense's Center for Total Access at Dwight David Eisenhower Army Medical Center in Fort Gordon, Ga., about 150 miles away. As Martin examined her patient's ears with an otoscope, Alexander viewed the scene on a TV monitor at Fort Gordon, then prescribed treatment.

English was one of about 15 military patients a day

treated during the Olympics, thanks to an unusual collaboration among AT&T, the Georgia Department of Corrections, and the Center for Total Access, which has regional responsibility for 23 military medical facilities in eight Southeastern states.

A win-win-win situation

With more than 14,000 troops on duty at the Olympics, military personnel faced difficulties in handling routine medical care. Service men and women were being housed at seven schools in outlying areas, and only limited medical facilities were available at Fort McPherson, located in the heart of downtown Atlanta's Olympic-sized traffic jams.

That's when AT&T's Dan Sudnick, director of Health Informatics and Telemedicine Systems, and Jack Horner, executive director of the Center for Total Access, learned of a new telemedicine initiative of the Georgia Department of Corrections (DOC)—a mobile van equipped with telemedicine equipment. To be driven to four state penitentiaries for patient examinations, it would eliminate the cost of transporting inmates to the Augusta central prison hospital for routine exams.

The DOC needed a way to test and de-bug its van before taking it on the road. The Army needed a more efficient way to deal with Olympics health care, and AT&T, which had been exploring long-term possibilities in telemedicine with Horner's group, was interested in helping its customer evaluate such a system. With the DOC offering to donate the van and AT&T working through the local phone company to provide the T1 line plus financial backing, the joint effort was born.

"We took advantage of the state's offer and AT&T's support to give us an opportunity to evaluate some off-the-shelf telemedicine technology," said Horner, "not just for our troops stationed at the Olympics, but for a number of other applications. For example, everything you see here in this van could be packed in a ruggedized vehicle with wireless communications and sent to Bosnia to support our troops there. Our partnership with AT&T over the years has been very profitable. We're taking advantage of AT&T's knowledge to save research and development dollars."

Turning phone lines into life lines

The DOC telemedicine system, packaged by Hughes Training Inc. of Augusta, Ga., includes videoconferencing equipment, an endoscopic camera with an otoscope and ophthalmoscope, and camera controls for technician Alan Davis, who will travel with the van to facilitate exams.

AT&T offers a full range of consultation services and

product lines from a variety of internal and commercial equipment suppliers to help clients custom-tailor the telemedicine system they need to "turn phone lines into life lines," said Sudnick. "The key to our strength in telemedicine, however, is our worldwide intelligent network," he added. "We feel, and our customers confirm, that AT&T provides the most reliable, secure connectivity between distant points, and the network can provide patients with timely, cost-efficient access to specialized medical care. In addition, the network and supporting systems facilitate the exchange of critical multimedia information

among medical professionals, hospital administrators, military commanders and senior managers for urgent and routine medical situations."

Better, faster care

After a few days at the Olympics, the DOC van was proving effective, said Fabienne Tate, assistant health services administrator. "We've had no problems at all," she said. "Patients like the new technology, and we'll be saving dollars, which will make the public very happy. Typically, we've been transporting prisoners a long way for a five- to 10-minute appointment. Patient transport from prisons has been estimated at \$300 to \$500 per trip,

and there also are security issues involved. With the van, we can drive to four institutions and see 16 to 20 inmates at each place. More patients are seen quickly, and with expert care."

Tate's enthusiasm was echoed by the Army's Maj. Alexander, who dubbed the system "very close to a hands-on exam. I feel confident of the diagnosis I'm able to give and the treatment I can prescribe," he said. "It has everything except the stickers we give to our pediatric patients."

"Bill Winship, program manager, was able to pull together AT&T's telemedicine presence at the Olympics, and our customers, including ACOG, were ecstatic," said Sudnick. "Our military customers are extremely excited about it. People see the obvious benefits of this technology now. They see it's not just a pipe dream. It will revolutionize the delivery of health care services just as electronics—such as ATM machines and computerized banking—have revolutionized the financial services industry."

For more information on AT&T telemedicine products and services, contact Pat O'Brien at 1 800 897-2501 or by e-mail at attmail!hcare ■



ABOVE: Jack Horner, left, executive director of DoD's Center for Total Access, talks with AT&T's Dan Sudnick on site at the Olympic Games.

LEFT: Maj. Andrena Martin examines Sgt. Sheri English during a telemedicine consultation with an Army physician 150 miles away at Fort Gordon, Ga.

Unconventional Convention Technology

AT&T wins vote; Internet makes debut

AS THE "OFFICIAL TECHNOLOGY Company and Long-Distance Provider" for the Republican and Democratic National Conventions, AT&T Government Markets integrated its

most advanced telecommunications technology to welcome the world to San Diego and Chicago. An immense lineup of leading-edge AT&T products and services enhanced communications for more than 50,000 visitors, making these conventions the most technologically advanced ever. Convention halls and hotels in San Diego and Chicago were humming in August when AT&T brought its collection of high-speed digital networks, multimedia terminals, and electronic voting equipment to the 1996 national conventions. And for the first time ever, the conventions' floors were linked to the outside world via the Internet.

The Democratic National Committee (DNC) and the Committee on Arrangements (COA) for the Republican National Convention selected AT&T because of its customer service, reliability and sophisticated technology. AT&T's mandate was to provide a seamless communications network that would support candidates, delegates, broadcast and print media, security specialists and everyone else at the convention.

"Our goal was to exceed the expectations of these customers while making the convention the most technologically advanced ever," said

Stan Gorski, AT&T director of the 1996 Democratic Convention.

AT&T has provided communications services for every national political convention this century. This year, AT&T, Lucent Technologies and NCR committed premier services, equipment, employees and global resources to give convention attendees access to the world.

A High-Tech Showcase

Officials for both the Democratic and Repub-



LEFT: AT&T's Christine Myers, left, confers with San Diego Mayor Susan Golding.

RIGHT: RNC home page welcomes visitors.

lican parties went the high-tech route to give customers easier access to information and each other. The Internet was embraced as a new medium for delivering the parties' messages, and access to high-speed digital lines, e-mail and videoconferencing helped relieve congestion at crowded convention centers and adjacent hotels.

"Our challenge was to successfully integrate a vast array of technology and network systems—all shapes, sizes and applications—into one robust communications platform," explained

Christine Myers, AT&T director for the Republican National Convention.

The technological wonder of the conventions was the multimedia information and voting station available to each of the 56 delegations on the floor. With a Definity* platform, NCR terminals and high-speed Integrated Services Digital Network (ISDN) lines, these communications systems had the power and flexibility to deliver the unique voice and data applications required by both the DNC and COA.

With AT&T technology, the Democrats have voted electronically since the 1988 convention. Touch-screen capabilities were added to the voting center in 1992 and the system was further enhanced this year to include Internet and intranet capabilities—an unprecedented decision that made convention history.

"The Delegate Communications System (DCS) used at the 1996 Democratic National

Convention is the hallmark of 12 years of research and development," commented Gorski.

"It was the showcase product that helped us deliver excellence to our customers."

New AT&T technology also was showcased at the 1996 Republican Convention when electronic voting was made available to delegates for the first time ever. AT&T incorporated voting capabilities and Internet access into the multimedia computer stations developed for each of

the delegations on the floor.

"Users could call up the convention home page, preview scheduled activities, read a biography of the speaker on the podium and then, with another click, even shop electronically at the Republican gift store," commented Myers.

Additionally, AT&T and NCR developed and installed 20 multimedia kiosks in and around the San Diego Convention Center. The termi-

FRED SMITH ASSOCIATES

Chicago

nals provided free convention information, news, sports, directions to area attractions and select Internet access.

AT&T WorldNetSM Service provided the dial-up Internet access that made it easy for guests to view home pages, enjoy real-time video and audio of convention activities, and use voice mail, e-mail and videoconferencing services. The software was distributed free to thousands of convention goers in both San Diego and Chicago.

Connecting America—and the World

AT&T's easy-to-use Internet access also gave many party officials the opportunity to bring America to the convention floor. Hitting the high-tech campaign trail, numerous political luminaries such as Colin Powell and Sen. John Glenn conducted live, on-line chat sessions with constituents from the convention floor in San Diego and Chicago.

This interactive approach to convention campaigning gave guests the unique opportunity to deliver targeted, unfiltered messages via the Internet. "People say they feel disconnected from politics," commented Gus Pace, the assistant director of Internet programs for the Republican National Convention. "The Internet is reconnecting the American people."

Close to 7 million "hits" on the Internet were attributed to both conventions—1.1 million "hits" occurred on the first day of the Democratic Convention in Chicago.

In San Diego, AT&T designed and hosted one of the largest event websites ever constructed. "AT&T did an outstanding job throughout our convention and in particular with Internet programs," commented Pat Garahan, COA's chief administrative officer. "The company was deeply committed to satisfying the needs of our diverse user groups—and response time was always excellent."

Round-the-Clock Service

Customer service was a top priority for Gorski and Myers, who recruited almost 400 AT&T employee volunteers to assist the hundreds of company employees dedicated full time to con-



FRED SMITH ASSOCIATES

vention business. And business was booming.

For example, AT&T employees in San Diego installed more than 8,000 phones and filled requests for more than 500 changes for communications service in the five days just prior to the convention. And in Chicago, 1.2 million calls were routed through Lucent Technologies' 5ESSR-2000 digital switching system that supported the convention's telephone infrastructure. Call volume peaked on the first day of the convention at 320,000, with the system handling 31,000 calls in the busiest hour.

"AT&T customer service was exemplary throughout the convention," commented Mark Bilski, director of Convention Planning for the DNC. "The products and services AT&T brought to the floor helped us be true to our own words—that technology is a bridge to the 21st century."

With AT&T's technology and dedicated staff support, communications on and off the floor were easier than ever at the 1996 conventions. Here are just a few of the other special services AT&T offered:

TOP: AT&T's Stan Gorski demonstrates free long-distance service at real "Big Phone."

BOTTOM: AT&T employees staff service desk at the DNC Press Filing Center.

■ AT&T Long-Distance Services ensured all voice, data and video calls were transmitted on the most technologically advanced network in the world.

■ AT&T T-45 Broadcast Video supported the national distribution of live, on-air coverage for major national television networks.

■ AT&T Press Filing Centers were open 24 hours a day for reporters who needed a place to write and file stories. Fully equipped with computers for Internet access, CNN coverage on large screen televisions, telephones, fax machines, tables and refreshments, the drop-in centers provided a convenient and comfortable workspace for the media.

■ AT&T EasyLink Services[®] broadcast fax service allowed members of the media to send convention news to as many as 1,000 locations simultaneously.

■ Alliance[®] teleconferencing service allowed customers to set up their own conference calls without operator assistance.

■ DIRECTV[®] is a satellite broadcasting service that beamed almost 200 channels of television programming from orbiting satellites to households.

■ Commemorative Prepaid Phone Cards were available for purchase by convention visitors. —Leslie Barley

Convention Connections

AT&T served more than 50,000 customers during the Republican and Democratic National Conventions in August. Here are just a few of the high-tech connections made in San Diego and Chicago:

30 million minutes of AT&T long-distance service were used

7 million calls were routed through Lucent Technologies' 5ESSR-2000 telephone switches

4.8 million "hits" occurred on the Internet

20,000 AT&T WorldNetSM diskettes were distributed free-of-charge to convention visitors

13,000 Commemorative prepaid calling cards were sold

2 million feet of cable and fiber-optic connections were run through convention centers and adjacent hotels

GWIN

Uniting AT&T international services

When you need to do government business worldwide, swift, cost-effective communications services—voice, fax or data—can make all the difference.

AT&T Government Worldwide Intelligent Network (GWIN) service brings together all of AT&T's extensive international calling capabilities under one umbrella, allowing you to select the exact services you need for individual agency locations.

GWIN offers the lowest AT&T prices currently available for international direct-dial service. And AT&T provides direct-dial service to more than 260 countries—more than any other carrier.

You can choose either switched or dedicated access. Large locations will find the dedicated access option attractive, while the switched access arrangement is better-suited for smaller offices.

Here's a look at the services available under GWIN and the advantages they offer you:

AT&T Direct® and Toll Free via AT&T Direct services are the fast, easy ways to call back to the United States. Callers simply dial the local access number—or pick up a specially marked AT&T Direct phone—and are immediately connected to AT&T. With AT&T Direct service, callers can use their AT&T Federal Calling Cards, and your agency is always billed in U.S. dollars. Using AT&T GWIN rates, you'll save an extra 35 percent on all AT&T Direct calls.

AT&T World Connect service allows users an easy way to call between international locations. By using one AT&T Direct access number, callers can place calls from more than 80 countries to more than 200 countries and locations with the same convenience of statewide AT&T service.

The AT&T Federal Calling Card is an invaluable partner for all away-from-the-office calling needs. With AT&T GWIN service, the card gives access to enhanced features and services. The card is accepted in more locations than any other call-

ing card. Specialized billing reports are available to analyze calling patterns, and FTS2000 Federal Calling Card users can add GWIN international calling and use the same card for both services.

AT&T Billing Edge service helps you analyze calling patterns to spot toll fraud and abuse. Billing Edge also aids in identifying further savings opportunities for your organization.

AT&T NetPROTECT® service provides 24-hour monitoring for toll fraud at no extra charge.

AT&T GWIN service also offers additional benefits including:

- Discounts on direct-dial domestic calling;
- Discounts on domestic toll-free (800/888) services;
- Integrated billing for all domestic and international toll-free and calling card services.

Another important advantage of AT&T GWIN service is that overseas callers can reach your current FTS2000 800 number using AT&T GWIN Toll Free via AT&T Direct service. Because FTS2000 is a contract for only domestic service, international callers previously could not call government vanity 800 numbers. But by selecting one of the AT&T GWIN service access arrangements, combined with AT&T Direct service, callers in more than 145 countries can reach U.S. government locations by calling the same 800 number your agency uses for domestic calls. Domestic 800 traffic will still be routed over the FTS2000 network, while international traffic will be routed over the new GWIN access facilities. And you'll save 35 percent on international usage, compared to commercial Toll Free via AT&T Direct charges.

To take advantage of this important new tool to help you add flexibility and efficiency to your telecommunications service, contact your AT&T account representative. —Joyce Deaton

UIFN

New in '97: 8-digit format for easier international toll-free dialing

Armed with a single toll-free number for a particular business or government agency, you can travel across North America—from Boise to Boston to Baton Rouge—and use that one number to place your call.

But if you head overseas, toll-free calling home to the United States can become considerably more complex. Dialing codes and numbering systems vary from country to country. If you're visiting Barcelona, Bologna and Basel, for instance, your toll-free call to the same company or government agency may require three different numbers and/or codes. By popular demand, that is about to change.

Standardized dialing format

In 1997, a new, uniform dialing format called Universal International Freephone Numbering (UIFN) will make its debut. UIFN will significantly simplify international toll-free calling by allowing you to dial the same international toll-free number from anywhere in the world.

Under this standardized dialing plan, you will simply gain access to the international network (011 in the United States and 00 from most other countries), then dial 800 plus an eight-digit number. For example, a UIFN number dialed from the United States would look like this: 011 800 4555-1212.

"Our government customers have wanted this for a long time," said AT&T Applications Manager Onitta Hagerman. "It makes international toll-free calling less complicated for everyone, such as citizens traveling abroad, soldiers on a faraway military base or federal employees conducting business."

Telecommunications managers will benefit, too, since a standard-

ized format will streamline the number of international toll-free numbers to track, publicize and manage. "Right now, if you want to conduct toll-free business in several countries, you need several different toll-free numbers," Hagerman said. "With UIFN, you'll use one number everywhere."

Register now to retain specific numbers

AT&T, on behalf of its customers, has been a leading proponent of this new international toll-free dialing format. Teaming with other global long-distance carriers, it has been negotiating the details with the International Telecom Union (ITU), the United Nations organization that governs this issue.

"Many government agencies will want UIFN numbers similar to the toll-free numbers they have today," Hagerman said. "Agencies that apply now have the best chance of retaining their desired numbers in the new format." Here are the regulations:

- Application requests for a specific, or "vanity," UIFN number will be accepted until Jan. 17, 1997, by the AT&T reservation center.

- To embed an existing number into a UIFN number, three priority levels are used. A toll-free number—either domestic or international—in service before Dec. 1, 1994, will get the highest priority, as stated by the ITU. Numbers put into service since then up until the present day are on the next lower rung of the priority ladder. Brand new number creations get lowest priority.

- A UIFN number must be installed and working within 90 days of approval, or the customer will lose the rights to that number.

- Beginning Feb. 1, all UIFN applications will be handled strictly on a first come, first-served basis.

- The ITU will notify AT&T of final number assignments by late February, and AT&T account teams will notify customers.

Hagerman expects 15-20 countries to adopt the UIFN dialing format early next year, with many other countries eventually coming on board.

For more information, contact your AT&T account representative. —Jackie Wides



JWID

Winning the war on the communications front

THE INTELLIGENCE REPORTS ARE IN AND THEY PAINT A SOBERING PICTURE. Massing ground troops on its southern border, the nation of Korona is ready to begin military operations against the northern border of neighboring Kartuna, an American ally roughly the size of South Carolina.

Three divisions are already near the border, another 12 are mobilizing and almost 100 aircraft are less than 250 kilometers away. Kalena, Kartuna's most holy city, is the likely target.

To prevent an almost certain holy war, the U.S. Central Commander and coalitions from seven other nations have joined forces. Those forces must be able to share information, resources and, most importantly, connections to their commanders, quickly and efficiently.

The scenario, of course, is imaginary. The need for military forces to link soldiers in battle with those in command, though, is all too real. As communications technology continues to improve at unheard-of-speeds, winning the information war can be almost as critical to today's military forces as winning the war itself.

That's why AT&T Government Markets and Wheat International Communications Corp. have joined forces to demonstrate a flexible communications platform for key military decision-makers.

Called the Theater Deployable Multimedia Communications Service (TDMCS) for demonstration purposes, the platform gives soldiers and commanders a lightweight system capable of being moved wherever it's needed. TDMCS allows collaborative planning on network workstations, videoconferencing, file transfer and access to other military and civilian agency networks.

"A deployed soldier needs as much communications capability as we can deliver, in

the smallest package possible," said Ken Pedersen, assistant vice president, Defense Markets. "TDMCS will fit all their data, voice and video needs on a single circuit."

The platform was demonstrated as part of



Ken Pedersen, AT&T assistant vice president, Defense Markets (standing), demonstrates the Theater Deployable Multimedia Communications Service for Sgt. Robert Coleman of Ft. Huachuca, Ariz.

the Joint Warrior Interoperability Demonstration (JWID), hosted by the Army at Fort Bragg, N.C. During the month-long test, new technologies are put to the test during a simulated warfighting exercise. Technologies are evaluated and potentially incorporated into future acquisition plans.

As a joint services demonstration of Command, Control, Communications, Computers and Intelligence, JWID involves all branches of the military, the Department of Defense and other agencies, as well as private

industry. This year's demonstration included technologies sponsored by Australia, Canada, New Zealand, the United Kingdom and the North Atlantic Treaty Organization. In another JWID demonstration at Fort Gordon, Ga., AT&T displayed its telemedicine capabilities in a Battlefield Informatics demonstration.

"Connecting soldiers to their commander,

and keeping them connected, is a necessity in today's environment," said Cecil Staton, JWID program manager. "This service lets that happen more quickly than ever."

TDMCS is flexible enough to be packaged in six storage cases, mounted on the back of a HUMVEE for easy transport, or modified to fit air-drop specifications. It sends voice, data and video traffic based on Asynchronous Transfer Mode (ATM) technologies.

ATM manages circuit bandwidth by sending voice, data and video in packets across a single circuit.

"This system brings a new capability to the business end of a bayonet," said Army Capt. Mike Shillinger. "What AT&T is

doing now will take the Army into the 21st century."

For more information about TDMCS, please contact your AT&T account representative. —Greg McCormick



GREG MATHEISON

GREG MATHEISON

Mission: Possible

Rebuilding Kuwait's Military Telecommunications Network

A SMALL MIDDLE EASTERN NATION HAS BEEN INVADED AND OCCUPIED BY A more powerful, aggressive neighbor. Months later, the invading army is routed by Allied Coalition forces during an all-out, 100-hour ground offensive. Freedom is restored, but vast regions of the country resemble a combat zone. Your Mission: To completely rebuild the nation's military communications system in three months, despite unmarked land mines, unexploded bombs and treacherous booby traps.

This is not the plot for a sequel to "Mission: Impossible." It was the actual scenario faced by the men and women of AT&T's Government Communications International (GCI) when they were deployed from Saudi Arabia to Kuwait in February, 1991, just hours after the country had been liberated from the army of Saddam Hussein.

The entire world followed the progress of Operation Desert Storm on the nightly news. Five years later, however, few people are aware of one of the Gulf War's best untold stories—GCI's rebuilding of Kuwait's entire military communications network.

Roadblocks, Blackouts

When GCI team members arrived in-country, they faced an incredible scene. Major highways were snarled by roadblocks. Power outages created widespread blackouts. Burning oil wells made headlights mandatory for mid-day driving.

"No one knew where the Iraqi land mines were buried, so it was dangerous to step off the tarmac at Kuwait's four Air Force bases," said Duncan Sillars, project engineer for GCI. "One of our installation teams repeatedly drove over a 'hump' in the road. They later discovered the hump was caused by an unexploded bomb." He recounted another occasion when an AT&T employee ran over a live

20 millimeter round and blew the tire off his jeep. War stories like these were commonplace among GCI personnel working in post-war Kuwait.

GCI installed a new 11 Gigahertz (GHz)



microwave communications system for the Kuwait Air Force and an 8 GHz microwave system for the nation's Ministry of Defense. Both systems are interconnected for seamless communications among Kuwait's armed forces. The network includes multiplexing equipment, Definity* PBXs, a mobile radio system and supporting hardware. GCI personnel provided project management, material, installation, testing, operation and maintenance for the nationwide military communications network. Microwave technology was selected because it could be

Much of Kuwait resembled a combat zone in the aftermath of the Gulf War. Many microwave communications towers were destroyed and hundreds of oil wells were torched by the retreating army of Saddam Hussein.



implemented more quickly and cost-effectively than fiber-optic cable.

"Kuwait's current military telecommunications network is far superior to the one destroyed by the Gulf War," said Dave Formisani, senior project manager for GCI. "The present system is larger, more robust and provides greater redundancy." GCI has stationed a team of nearly 30 employees and contractors in Kuwait to operate and maintain the system, which has provided a critical communications link during the past five years.

A Nation's Gratitude

Dr. Ibrahim-Majid Al-Shaheen, director of the Kuwait Emergency and Recovery Program, conveyed his nation's gratitude to all who helped during and after its liberation. "The Kuwait Emergency and Recovery Program, on behalf of the government and people of Kuwait, wishes to express heart-felt thanks and appreciation to the government

and people of the United States and, in particular, the management and employees of AT&T, for the assistance unstintingly given in Kuwait's time of greatest need following the invasion by Iraq on Aug. 2, 1990."

—Ken Gadd

* Definity is a registered trademark of Lucent Technologies

REACHING

AT&T Sponsors

NEW

16th National Veterans Wheelchair Games

HEIGHTS

BY ALICIA NORDQUIST

PHOTOS BY ELLEN BANNER/FRED SMITH ASSOCIATES





IN THE CEREMONIAL SPLENDOR OF THE OLYMPICS, THE 16TH NATIONAL Veterans Wheelchair Games touched participants and spectators with as much emotion and glory as the spectacle in Atlanta. But in Seattle, Wash., everyone who competed was wheelchair-bound and everyone was a winner.

The games, presented each year by the Paralyzed Veterans of America (PVA) and the Department of Veterans Affairs (VA), brought almost 600 PVA members together July 2-6 for daunting rounds of challenging events to dazzle the eye of the most experienced competitor. And throughout the week-long event, athletes could call home to catch up on news and spread the word of victory—thanks to AT&T's FTS2000 service.

The AT&T Connection

"AT&T, as the host sponsor, made a major contribution to help defray the costs associated with presenting the games," said Gwen McLaughlin, AT&T national account manager for the VA. "We also provided the telecommunications infrastructure—that is, long-distance service and use of equipment, including cellular phones and faxing capabilities—to the games' volunteer staff. We enabled the staff to fax individualized press releases to each athlete's hometown newspaper."

The AT&T Command Center provided cellular phones and air time for staff at the Washington State Convention and Trade Center, where events like basketball, table tennis and weightlifting were held. Other phone centers were set up at the Westin Hotel, where the athletes stayed, the University of Washington, and at other sites where track and field, swimming, bowling, archery and nine other events took place.

Behind the scenes, more than 100 active and retired AT&T employees, including members of the Telephone Pioneers of America,

assisted athletes before, during and after the games with technical, clerical and transportation support.

The VA/PVA Connection

Participation in the games is open to all U.S.

military veterans who use wheelchairs due to spinal cord injury, certain neurological conditions, orthopedic amputations or other mobility impairments. The disability need not have been incurred as the result of a service-connected injury; however, about 10 percent of the participants were injured during military confrontations.

"VA uses sports and recreational activities as part of rehabilitation programs in our medical centers across the country," said Secretary of Veterans Affairs Jesse Brown. "These games demonstrate our commitment to not only heal the wounds of our soldiers, but also to ensure they enjoy a high quality of life for the rest of their lives."

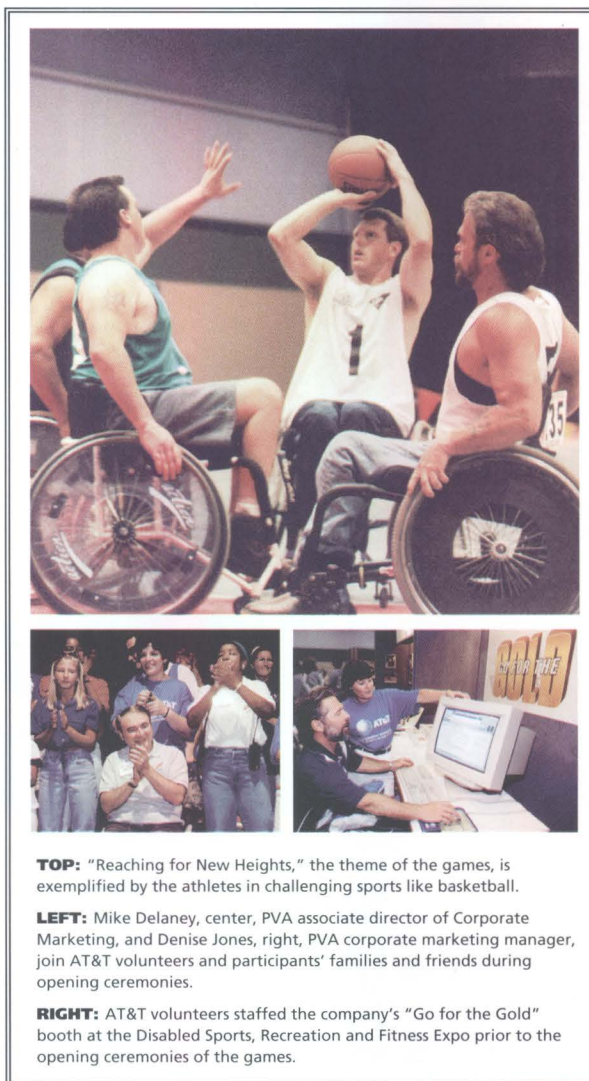
"These games attract veterans of many eras—from Korea to Vietnam to Somalia," Brown continued. "They are the men and women who put their lives on the line. Now we want to give them back their self confidence by introducing them to the exciting world of sports still available to them."

Noting that PVA, celebrating its 50th anniversary, was an early pioneer in wheelchair sports, Michael Delaney, PVA associate director of Corporate Marketing and a Vietnam veteran, said that during World War II, vets were playing wheelchair basketball in the hospital halls. So it was not unusual to see WWII vet Ivan Kornutik, 83, of New Jersey, the oldest registered participant, and the youngest, Nakeia Ayers, 20, also of New Jersey, competing.

The Sports Connection

Misty Guard-Allen from Virginia Beach, Va., was in the Navy Hospital Corps stationed in Rhode Island. After her discharge, she was working for the Marine Corps Exchange at Camp Lejeune, N.C., when she "had an argu-

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TOP: "Reaching for New Heights," the theme of the games, is exemplified by the athletes in challenging sports like basketball.

LEFT: Mike Delaney, center, PVA associate director of Corporate Marketing, and Denise Jones, right, PVA corporate marketing manager, join AT&T volunteers and participants' families and friends during opening ceremonies.

RIGHT: AT&T volunteers staffed the company's "Go for the Gold" booth at the Disabled Sports, Recreation and Fitness Expo prior to the opening ceremonies of the games.



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ment with an eight-foot ladder, a 50-pound box of candy and a concrete floor." She's been coming to the games since 1986. "I don't want to be seen as some poor little disabled person who needs all the help in the world," Guard-Allen said. "I want to be seen as a person who happens to have a disability but can accomplish a great deal."

Never before athletic but always active, she competed in basketball and swimming in her first PVA Games and then picked up air guns as an exhibition sport. Shooting is Guard-Allen's main sport now, but she's developing some ability in discus and plans to go to the Paralympics in Australia in four years.

"I love to see the novices," Guard-Allen said, "the ones who haven't really accepted their injuries until now. Here, competitors help other competitors even if they're not on the same team. I see them compete and be successful about something. They hold themselves a little more proudly."

Each year the Spirit of the Games Award is presented to the participant who was the most inspirational, devoted and "spirited" throughout the games. This year's winner, Holly Koester, a former Army captain from Ohio, was injured in 1990. One year later, she took two gold and two silver medals home from her first compe-

tition in Miami, Fla.

"I figured I'd be sitting on the sidelines just watching everybody else playing sports, and cheering them on. Then two therapists at the VA hospital got me involved in sports. I had only been in a wheelchair six months when I

The AT&T/PVA/VA Connection

Delaney has been on PVA's staff since 1983. Prior to that, he served as national president from 1980 to 1982. He recalled PVA's early ties with AT&T. "In 1985, the VA came to us and said 'we really want to see these games grow

and we'd like you to be our partner.' That same year we developed a book about hotel design for people with disabilities and AT&T helped coordinate the section covering equipment for the hearing impaired," he noted. "Gwen became involved four years ago and I attribute our continued relationship with AT&T to her strong support of America's veterans."

AT&T, a national sponsor last year, operates on the principles of dedication to helping customers, respect for individuals, teamwork, integrity and innovation. "I can't express how proud I am to be a part of the games," McLaughlin said. "Every one of the athletes is an inspiration, and being the host sponsor is truly a great honor."

The 17th National Veterans Wheelchair Games will be held July 6-10, 1997, in San Diego, Calif.

For more information, contact McLaughlin at 202 776-6377. ■



INSET: Sportsmanship and good will bring veterans like Harold Stone of the Eastern PVA chapter back each year.

TOP: Former Navy SEAL and Paralympic qualifier Al Kovach races home in first place in the 3,000 meter event.

ABOVE: Holly Koester, right, accepts the 1996 Spirit of the Games Award from Secretary of Veterans Affairs Jesse Brown and Local Organizing Committee Chairperson Marianne Marks. At left is PVA National President Richard Grant.

LEFT: Discus, javelin, shot put and club must be performed from the wheelchair in a stationary, stabilized position.

first competed in the games," she recalled. "I will always be an athlete. Participating in sports allows me to continue to better myself, watch others achieve their successes, and enjoy the friendships only athletes and sports enthusiasts develop."